Lincoln Cent Quarterly

LINCOLN SENSE • Vol. XXIV No. 4 • October, 2006

Die State Matters

At Least It Should...

by Charles D. Daughtrey

This is part one of a two part article written to educate readers on die state and why it matters to collect earlier die state coins. Part one explains die state in brief and how die state is determined. Part two will examine the relative rarity of different die states and will show an example of what the value "should be" of a given die variety using the relative rarity factor of each die state.

I am often asked what I look for in a doubled die or other die variety before adding it to my collection. Many would expect me to say that I am looking for the highest grade example I can find. While that is at least in part true, I am also looking for the earliest struck example I can find for many reasons that I will explain in the coming paragraphs.

How does one tell whether they have an early struck example of any given die? Just as coins wear in circulation, the striking of coins "circulates" the die. It actually wears down with the force of each strike, and this wear is directly transferred to the coins struck. It is most specifically characterized by small lines that usually radiate outward from the center of the design called "flow lines". See page 7 for a full article explaining die flow lines. These lines are the primary indicator of a die's relative age.

Die cracks and other marks on the die are also indicative of die wear, but not nearly to the extent that die flow lines are. Improperly annealed dies can crack early in production, so die cracks alone are not a good indicator of die wear. Cracking and chipping at stress points on a design can help in determining the order in which coins were struck that are from similar die states.

Die polish scratches and die gouges are other marks left on dies from maintenance, but like with die cracks they are not a good lone indicator of die state. Some dies are polished (usually with an emery board or steel wool) before they ever strike a coin. Others can be polished later to remove die clash marks and re-sharpen the appearance of the surface of the die. In short, since they can occur at any point in a die's life, they can help determine the order of strike of two coins from the same die, but they do not help much with determining die state.

(see **Die State,** continued on page 2)

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SLCC is a collector-based not for profit society founded in 1982 for the benefit of collectors and dealers in Lincoln Cents. Annual membership is $15. For $25 membership can be extended for two years. Mailing address is 13515 Magnolia Boulevard, Sherman Oaks, CA 91423 and the email address is SolTaylor2@aol.com.

President's Message

The recent ANA convention in Denver offered lots for the collector. Records fell (as usual) at the auction, wonderful exhibits attracted many visitors (see my column by Googling soltaylor.com). I gave a talk on the subject of "The Transition From Miss Liberty to American Personalities Starting with the Lincoln Cent in 1909." The Sundman Lecture Series offered several speakers during the convention and as I was last, the previous speaker ran over almost half my time and thus my audience was much smaller than the 35 or so expected. The key elements came from my book with transparencies of several news items and the cartoon showing vendors selling the new "VDB" cents two for a nickel on the day of issue.

The issue of ending the one cent coin came up both in Congress and in other talks at the convention. The Denver Mint speaker indicated they will continue to mint one cent coins for "some time yet" even though the cost of new planchets runs about 1.2 cents each. The current supply will last well into 2007. I had suggested aluminum cents (see my letter in the September issue of The Numismatist) where one pound of aluminum could yield over 400 coins while one pound of the current zinc composition yields less than half that number. The nickel is also getting a close look as it is 75% copper and now costs almost six cents per planchet. A smaller and/or cheaper nickel is the solution for our five cent coin.

I distributed dozens of copies of the Lincoln Cent Quarterly at the convention along with membership cards. Hopefully a few will be returned. Membership is always in flux--those who received pink slips in the last issue are reminded to renew (a pink slip is enclosed for those whose subscriptions have expired).

I won three awards at the Numismatic Literary Guild's annual Bash - Best Column, Best Web Site and Best Single Article in a non-numismatic publication (The Signal newspaper in Santa Clarita, CA). Read all about it by going online to soltaylor.com.

More million dollar coins have crossed the auction block this year than ever before. Likewise, many coins once available recently for $1,000-$5,000 are now selling for multiples of those values. Most of the action is in the high end (MS65 and up) of the market and the rare coins. Bread and butter coins such as the 1909S VDB are holding their own in all grades. The June Long Beach Coin Show auction had nineteen 1909S VDBs for sale in various grades and all got strong bids. Overall, mint state Lincoln still lead the hit parade in terms of price increases in the past year.

Happy Collecting.

Dr. Sol Taylor
President, SLCC

(**Die State**, continued from front cover)

Determining die state by looking at flow lines begins with the outer edge of the design. This is the area first affected by die wear. Other areas closer to the center of the design will show wear later in the die's life, but the outer area of the design will continue to wear more or less evenly throughout the die's life.

The following is a description of each die state. Next issue will deal more with the relative rarity of each die state, and will apply those rarities to specific die varieties.

Very Early Die State (VEDS): Will show no die flow lines. All details will be crisp, as hubbed into the die.

Early Die State (EDS): Some very light feathering (die flow lines) will show at the outer edges of the outmost devices on the design.

Early Mid-Die State (EMDS): A transition die state between EDS and MDS. Any coin that does not quite match the criteria for either of the die states it transits.

Mid Die State (MDS): Light to moderate die flow lines will show on the outer edges of the devices near the rim. Some slight loss of edge definition will be present, but without magnification the design will still appear sharp and distinct.

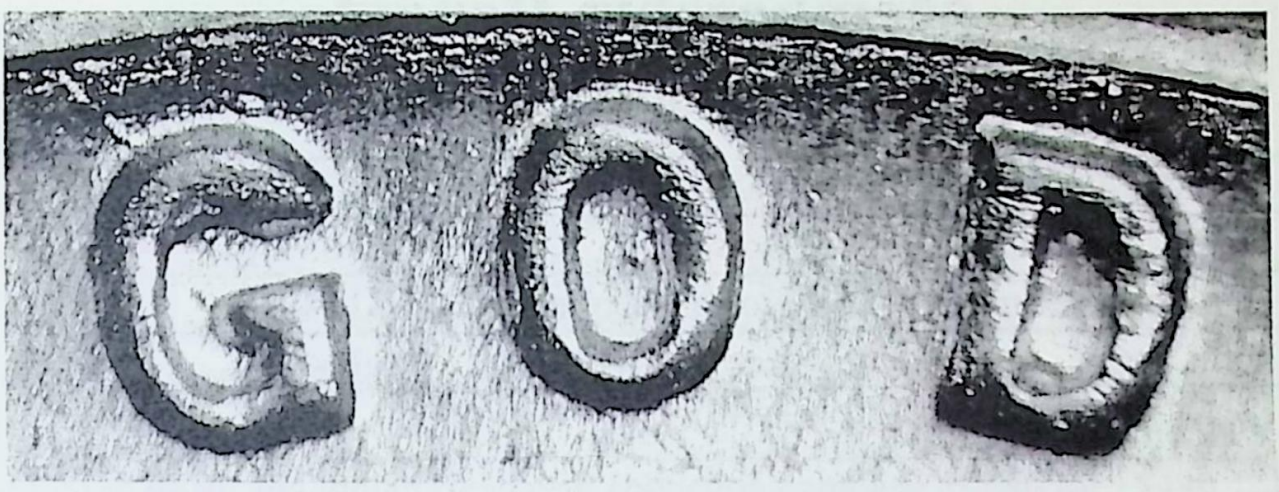
Late Mid-Die State (LMDS): A transition die state between MDS and LDS. Any coin that does not quite match the criteria for either of the die states it transits.

Late Die State (LDS): Moderate to heavy die flow lines will show throughout the design. Some design loss will be noted, especially in the outer edges of the outmost devices. Almost all outer edges of these devices will have only a basic outline and will be soft.

Very Late Die State (VLDS): Heavy die flow lines will show throughout the design. All outer devices will show significant design loss to the point that the outer edges of these devices will show almost no definition with or without magnification. Much of the central area of the design will be mushy and have little definition through magnification. Most small design characteristics will not be present.

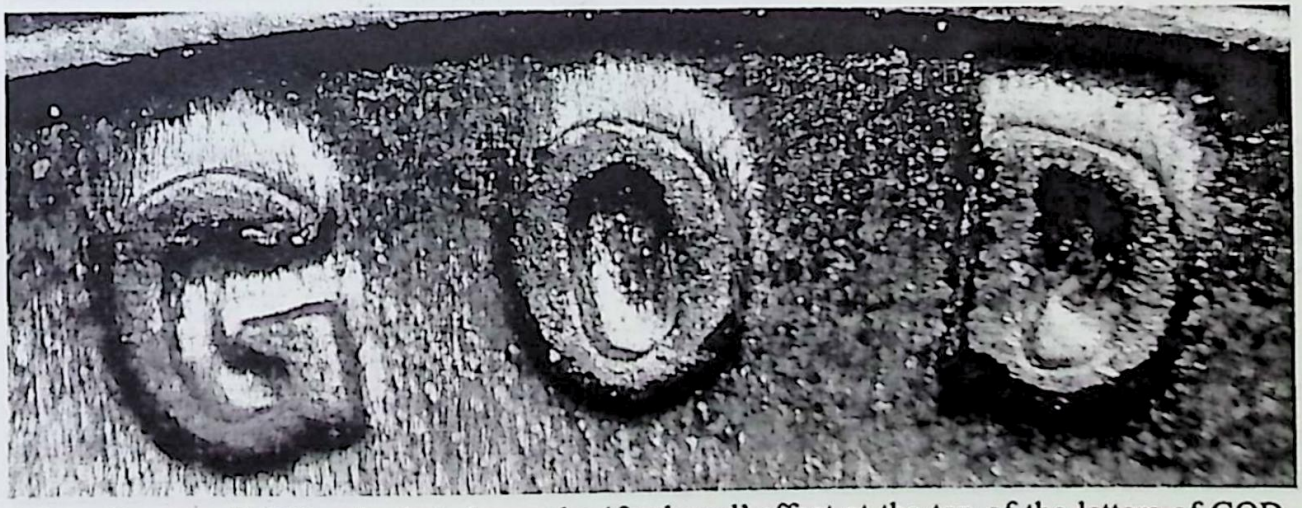
The following page shows photographic examples of some of the die states. As with many terms in numismatics (like grading), nailing down a specific definition with examples for die state can differ with source. Coins can be made at a time in a die's life that fall between die states. Best rule of thumb in this case is to go with the later die state of the two choices, and more often than not you will be correct.

Another important fact is that die state can differ from obverse to reverse on a single coin. Reason for this is that the dies are not always changed in pairs, and a die that struck 300,000 coins and is in perfect order could be paired with a brand new die. This would in effect make a VEDS - LDS pairing.



An Early Die State (EDS) coin shows no flow lines and has completely defined outer edges of the outmost devices on the coin. This image of GOD on a 1959 Lincoln cent can be compared to the other two photos below for a good visual image of what happens to a die as it ages.

A Mid Die State (MDS) coin that is beginning to show signs of die wear. Note there is light feathering at the outer edges of GOD, and there are some flow lines in the field, but the field is not completely covered with die flow lines.



A late die state (LDS) coin that shows the 'feathered' effect at the top of the letters of GOD. Note that the outer relief of the letters is almost gone due to the flow lines. Note also the heavy flow lines covering the entire field.

Membership Report

The following members have been added since our last issue:

David Holmes	California	R1638
Dennis P. Skea	New York	R1639
Gerson W. Cumberford	North Carolina	R1640
Jim Cooper	Kentucky	R1641

Welcome and enjoy.

We have a number of members who are current in dues but have moved and have no forwarding address:

Terrance A. Martell, R1487
Stephanie Fullerton, R1595
Michael Johnson, R1633
Mary O. MacKinnon, R1436
Larry Wood, LM49
Kevin S. O'Conner, LM46
Kathy Sellers-Tapia, R1607

If you know any of these members, please have them contact SLCC to update their mailing addresses. If your LCQ has a pink slip enclosed it indicates your subscription has expired (or will expire shortly).

Got Something to Say?

Well, we would like to hear from you.

The SLCC is seeking members who would like to write and submit articles for publication consideration in future issues of the SLCC Quarterly. We take pride in being a member group of a small specialty, namely the Lincoln cent, and know you likely have stories, comments, discoveries, ideas, or knowledge that would benefit our other members.

Please do not hesitate to send article submissions via email to the newsletter editor, Charles Daughtrey at cd@coppercoins.com or to Sol Taylor, President, at soltaylor2@aol.com. Articles can also be submitted via mail to the address found beneath the table of contents inside the front cover.

We look forward to hearing from you!

Auction Results

SLCC reports the results of the regular Mike Aron Rare Coin auctions held four times a year since they reflect more closely the types of coins found in the SLCC mail bid sales. In addition, MARC specializes almost entirely in coins under $1000 (except for the gold coins). From the July 16, 2006 sale we note some of the offerings. The comments in parentheses are SLCC comments.

Flying Eagle and Indian Head cent collection complete except for the 1877 and 1909S. Avg circulated AG-VG (Nice set)	$490
1859 Indian PCGS MS62, (well struck details)	$240
1878 PCGS PR64RD (nice rainbow colors)	$340
1888 NGC PR65RB (looks just like the PR64RB)	$750
1908S XF40 (several obverse dings)	$48
Mixed lot Indian Head cents Fr-F15 300 pcs (some lower than fair)	$220
Dansco album Lincoln collection 1909-2001S no SVDB or major varieties. Later years are all BU or proof. 264 pcs.(nice set, 14D Fr-AG) opened at $200	$480
Similar set in Dansco album 1909-1975, no SVDB, 09S, 14D - 200 pcs. (bids started at $200)	$300
1909 VDB PCGS MS64RD (few teeny obv specs)	$34
1910S AU53	$48
1911S ANACS AU55 (brown)	$64
1913S MS64RB (more brown than red)	$290
1918S MS64RD (weak reverse as usual)	$550
1922P Var2, AG3 (weak overall details)	$70
1922D PCGS MS63RB (very late die state)	$110
1924D ANACS XF45	$70
1926S ANACS AU58	$48
1931S MS65RD (red a bit dull)	$190
1951 PR65RD (toned)	$27
1995 DDO NGC MS67RD	$64

Add 10% to all final bids for buyers' fee.

Mail Bid Sale #131 --- closing date - October 31, 2006

Submit your bids early--in the case of a tie, the earlier bid wins. You may submit bids by e-mail to SolTaylor@aol.com or mail in the enclosed bid sheet. Include a daytime phone number or e-mail address.

LOT	Description
	Los Angeles Consignment
1	Eight diff. 2c pieces 1864-1871 (almost a complete set). Range from G4 to VG8. The 1870 and 1871 are solid VGs. Worth $175
2	1902 Indian NGC/ANA PR64RB. Glimmering rainbow hues both sides, flawless surfaces. Near GEM 65 quality. Trends $350
3	1903 Indian borderline Unc, AU58BN with some read highlights.
4	Indian cent Love token, rev VF, obv engraved "EAC"
5	1909S Lincoln, G4 with grainy surface, grade AG. There is a remote chance that this is also a VDB, hints of initials appear on lower reverse rim. Can't confirm without further examination. Such faint VDB cents have been verified.
6	1926 MS64RD, full mint red and 1926 MS64BN, maybe dark RB
7	1922D ANACS G6 Weak D Die 3. One of the three recognized "no D" 1922 cents, but not THE official die 2 variety.
8	1966 special mint set, original box, all MS67 or nicer.
9	1967 special mint set, original box, all MS67 or nicer.
10	1992S PCGS PR69DCAM, as nice as they come
11	1993S PCGS PR69DCAM, as nice as they come
12	Two GEM proofs 2004S and 2006S PR69DCAM
	Georgia Consignment
13	1951D/D RPM#4 MS65RD
14	1953D/D RPM#1 MS64RD
15	1953S/S RPM#11 MS65RD
16	1954D/D RPM#1 MS64RD
17	1957D/D RPM#1 MS65RD
18	1960D/D lg date RPM#1 MS64RD
19	1960D/D lg date RPM#54 MS65RD
20	1961D/D RPM#1 MS63RD

lots continued on next page

	Long Beach Consignment
	note: PR70 DCAMs sell for $800-$1200 for these years...
21	1993S PR69DCAM PCGS
22	1996S PR69DCAM PCGS
23	1999S PR69DCAM PCGS
24	2000S PR69DCAM PCGS
25	2002S PR69DCAM PCGS
26	2003S PR69DCAM PCGS
	New Mexico Consignment
27	1909 VDB PCGS MS65RD, gen mint red
28	1909S VDB the key PCGS XF40, light even wear
29	1910 NGC MS65RD
30	1914D ANACS EF40, nice even wear
31	1915D NGC MS65BN, slight red traces, sharp details.
32	1925 MS66RD NGC, golden blazer
33	1955S PCGS MS66RD
	Missouri Consignment
34	1938S-1MM-001 (RPM#1) MS65RB - nicely toned. MB $20
35	1939S-1MM-002 (RPM#2) MS64RD - bright red - nice! MB $15
36	1946D-1MM-001 (RPM#1) MS62RD - blotchy spots both sides - nice hole filler for a nice RPM
37	1912D - very decent Fine grade - reverse is soft as usual.
38	1960D-1MM-037 (RPM#37) MS65RD - nice, bright coin
39	1960D-1MM-109 (RPM#109) small date MS64RD - nice coin.
40	1961D-1MM-032 (RPM#32) MS65RD - nice red coin, tough RPM!
41	1972 cent with 5% misaligned obverse die. MS64RB
42	1953D uncirculated roll of Lincoln cents MB $13
43	1955D uncircluated roll of Lincoln cents MB $10
44	1956D uncircluated roll of Lincoln cents MB $8
45	1958D uncircluated roll of Lincoln cents MB $8
46	20 uncirculated rolls of memorial cents - mixed dates - MB $25 PPD
47	500 mixed wheat cents - MB $18 PPD

End of Mail Bid Sale #131. Mail your bids early or send your bids by email to SolTaylor2@aol.com.

Odd Mintmark Placement

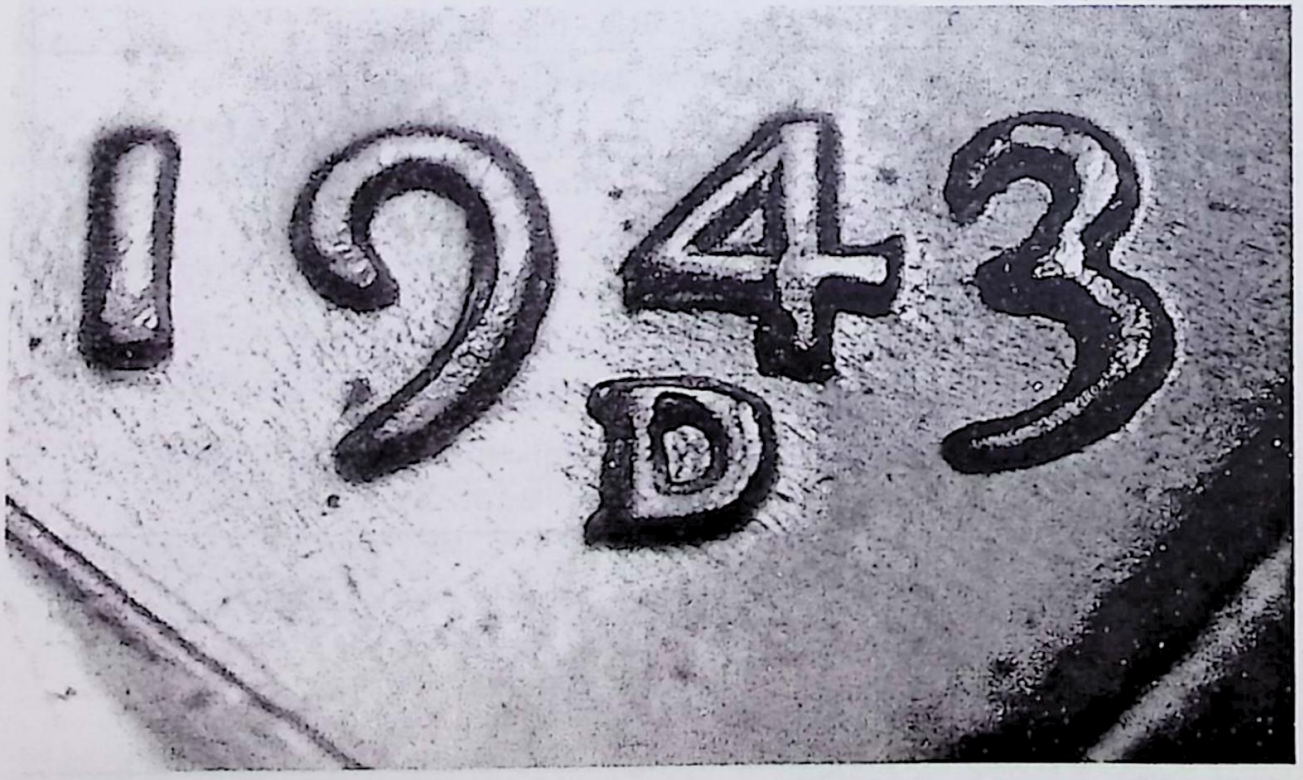
Author Bill Fivaz sent in this image of a 1943D cent with the mintmark placed very high. While mintmark placement does not necessarily make a coin valuable, they are interesting to note. Some people collect coins because of where the mintmark is placed.

Prior to 1990 all mintmarks were placed into Lincoln cent business strike dies by hand with a small punch and mallet. Sometimes the mintmarks were placed out of the normal area for mintmarks, which would be centered below the date and centered in the field between Lincoln's vest and the rim.

Often when mintmarks were improperly placed they would be ground off and repunched into the die. In cases where the first mintmark is not completely removed before the second is punched into the die, two mintmarks can be observed. This anomaly is known as a repunched mintmark.

In other cases (such as this coin) the mintmark was close enough to being correct that it was left where it was punched. Other dates are known to exhibit improperly placed mintmarks, but this is the first such odd placement known for 1943D steel cents.

If you have an oddity you would like to see explained in the SLCC Quarterly, email the editor, Chuck Daughtrey, at cd@coppercoins.com. Space permitting, we would like to publish and share your finds.



Mail Bid Sale #130 results

Results from our mail bid sale that ended August 10, 2006.

lot	sold
1	$15.00
2	$8.00
3	$7.50
4	$7.50
5 through 12	withdrawn
13	$44.00
14	$66.00
15	$15.00
16	$15.00
17	$15.00
18	$15.00
19	$15.00
20	$15.00
21	$2.50
22	$12.00
23	$14.25
24	$14.00
25	$221.00
26	$75.00
27	$111.00
28	$20.00
29	$21.00
30	$17.50
31	$4.00
32	$3.00
33	$12.00
34	$14.00
35	$10.00
36	$5.00
37	NB
38	$40.00
39	$13.00
40	$12.00
41	$30.00
42	$45.00
43	$3.00
44	$16.00
45	$15.75
46	$15.75
47	$10.50

nb = no bid t = tie bid

End of Mail Bid Sale #130. There were no late bids and no tie bids. Lots 25 and 27 received the most bids with 7 each. Twenty bidders submitted bids and 17 won one or more lots.

Bidding and prices realized were probably mildly affected by late publication of the Quarterly.

Die Flow Lines

What are they??

In the cover article of this issue, die state is described as a term used to define the point of life of a die at the time a coin is struck. This is determined by examining the die flow lines on the coin, transferred there by the die. So what are die flow lines?

Coins are struck in the United States by presses that exert thousands of pounds of force with each strike. The dies used to mint the coins are made of hardened steel with a design impressed onto them that transfers to the coins when minted. Regardless of how pure the steel is that the dies are made of, there still exist impurities and misaligned molecules of metal that tend to shift as the die is used. With every strike these odd particles tend to travel outward toward the edge of the die.

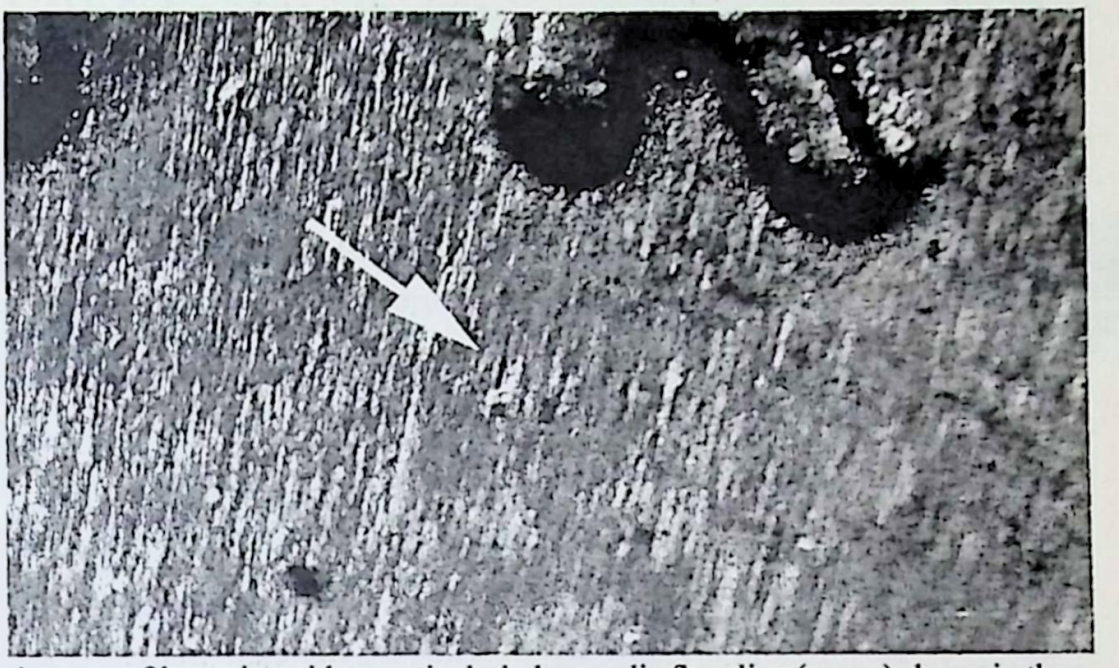
Die flow lines are characterized as usually straight convex lines on a coin that are easily viewable with a 30 power microscope. Often the particle of impurity that caused the line to form will be at the inside end of the line, with a cavity extending outward from the particle. Earlier die state coins will show fewer die flow lines, while later die state coins will be covered in them.

Luster is, in part, caused by die flow lines. Because coin dies are round and die flow lines tend to travel straight outward toward the edge of the die, die flow lines generally trace paths that somewhat resemble the spokes of a wheel--closer together in the center and farther apart toward the edge. Because these microscopic lines are somewhat straight and close to parallel, when light catches their edges it reflects in what appears to be large spokes. As the coin is tilted or the direction of light changes, the spokes dance around the coin - hence the name 'cartwheel' for this type of luster.

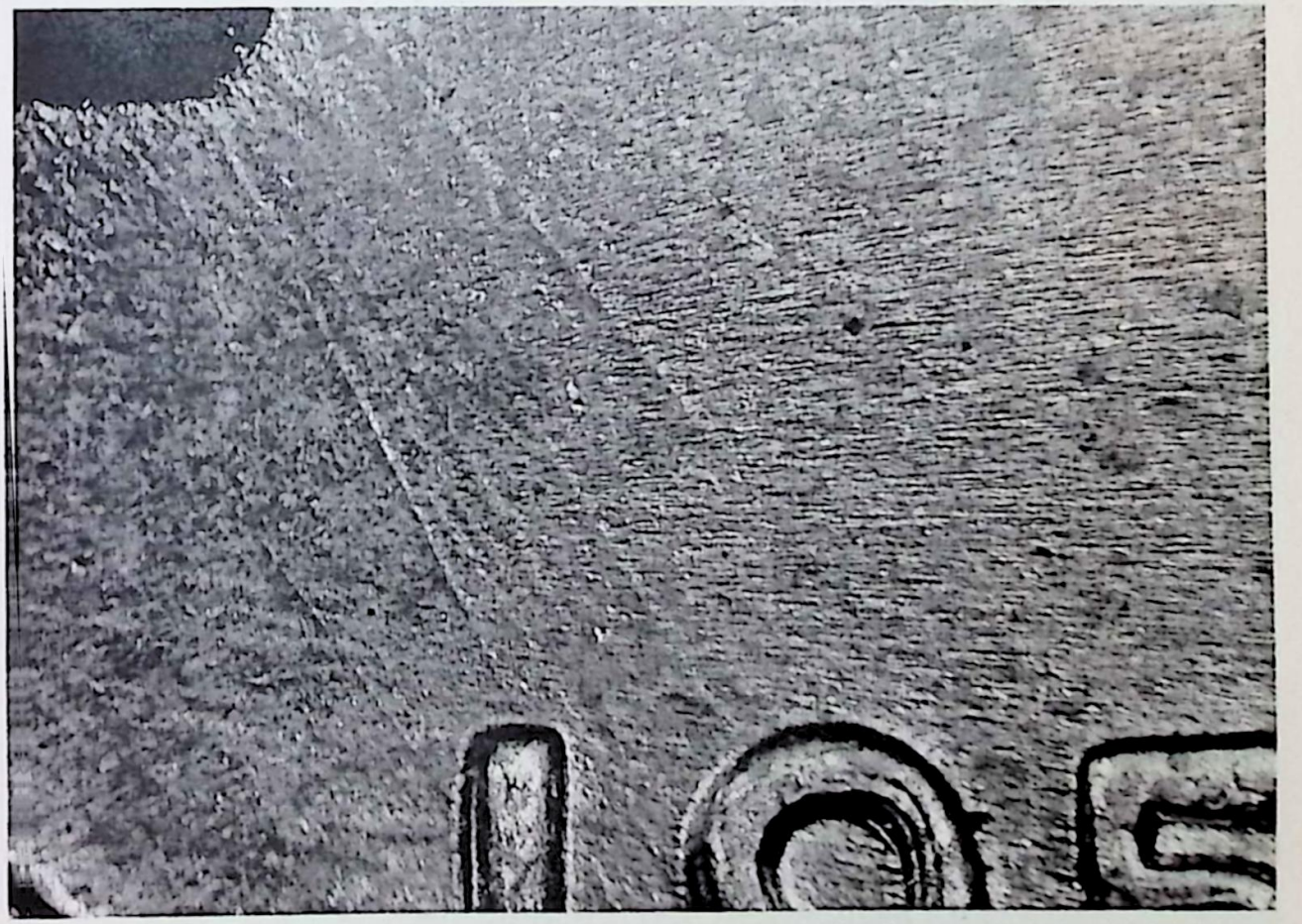
Flow lines are also important in determining whether a coin has been cleaned or dipped in acid. Because flow lines are very small, they are easy to damage. Acids and abrasive cleaners scrub the flow lines off an otherwise uncirculated coin leaving the surface of the coin too even and lacking the shine it once had. 'Lusterless' is a term often used with this effect.

Even proof coins can have die flow lines. The dies used for proof coins are the same as those used for business strikes, they are just polished and are usually used for far fewer strikes - because they develop die flow lines, and die flow lines are considered a distraction from achieving the high-gloss black field appearance desirable with proof coins. If you look carefully, however, at your proof coins, you will see the impurities, the mixed molecules of steel, and the lines they created even on the finest of proof coins.

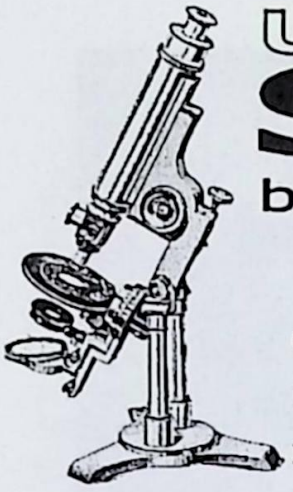
Die scratches are different from die flow lines, and with a little practice, they are easy to detect as being different. While die flow lines and die scratches are both raised on the coin (because they are sunken into the die), die scratches do not have the spoked-wheel appearance that die flow lines have. Die scratches are also usually patchy, curved, and are much larger (on a microscopic scale) than die flow lines.



An area of impurity with a particularly heavy die flow line (arrow) shows in the field beneath the R of TRUST on this 1956 Lincoln cent.



Die scratches and die flow lines show together on this coin. The die scratches are the few heavy marks that run from the chin to the 19 of the date. The die flow lines are the much smaller lines that radiate outward from this area to the right of the die scratches.



under the SCOPE

by Charles D. Daughtrey, NLG

With all the recent hoopla about the Minnesota statehood quarter doubled die reverses we tend to forget where the idea came from to look in the center of the design on coin reverses. It actually started out with the Lincoln cent.

Around 2000 an odd form of doubling was discovered on cents that made the steps of the memorial look wavy, and extended the fluting lines of the columns down into the base of the memorial. Through searching for these, collectors found other types of hub doubling on the reverses of modern Lincoln cents.

The type shown here is known as a "column piece" doubled die, a slightly shifted hub doubled die that occurs when the die pops into place during a single hubbing of the design. This classification of doubled die, class 9 "shifted" hub doubling, occurs mainly with the single squeeze hubbed dies (introduced in 1997).

The characteristic mark of this form of doubling is a raised bar that parallels the column, usually one of the two columns on either side of Lincoln's statue in the center of the memorial. These are rather common and not difficult to obtain. For this reason their value is quite limited - a couple of dollars each in BU to interested collectors.

In fact, I found the two shown to the right in one evening in just a couple of dollars worth of my pocket change. I needed examples to show here, so I dug into the change tray and found them. Happy hunting!

Under the Scope is a quarterly editorial written by Charles D. Daughtrey, author of Looking Through Lincoln Cents and coppercoins.com. You can contact Charles via email at cd@coppercoins.com.

Two examples of "column pieces" doubled dies. Above is a 1996D cent and below is a 2006 cent. Both were found in the same pile of change numbering fewer than 100 coins. The doubling shows as an extra bar to the left or right of the statue in the center of the coin design.

Society of Lincoln Cent Collectors

Mail Bid Sale Rules (revised 03/05)

Consignor's Rules:

1. Consignors must be members of SLCC.
2. Lots must be small cents--sets, rolls, singles, albums.
3. Coins must be marked as to date, mintmark and grade.
4. No altered, counterfeit, damaged, or loose coins accepted.
5. An invoice listing every item for sale must accompany the coins.
6. Coins will be listed in an upcoming sale--space permitting.
7. Lots containing many duplicates can be split between sales.
8. Payment will be made within 45 days after the close of the sale.
9. Unsold lots marked with a reserve will be charged 10% of the reserve to the consignor.
10. Unsold lots can be listed in future sales if consignor agrees.

Bidder's Rules:

1. Bidders must be members of SLCC.
2. Bids must be in increments of 25c, 50c, or whole dollars.
3. All lots are open except those marked with a reserve or minimum bid.
4. Use the enclosed bid sheet or duplicate. Bids may also be submitted by e-mail to soltaylor2@aol.com.
5. Bids must arrive before the deadline. Late bids will not be accepted.
6. No "open" bids accepted.
7. Bidders bidding on their own lots will be charged 5% if not overbid.
8. Bid sheets or e-mails must include: daytime phone number and bidder's signature along with mailing address.
9. Bidders are responsible for their own errors. Write legibly.
10. There is a 5 day return privilege--except for slabbed coins, coins certified by a third party grading service, or coins received more than ten days previously. Coins submitted for certification cannot be returned unless marked "altered" or "counterfeit." "Cleaning" does not qualify as "altered."
11. Bidders will be charged for shipping--insured or registered mail depending on value and packaging required for shipping. Shipping costs are not refundable if returning coins.
12. Subject to change without notice.